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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,424	07/29/2003	Jeffrey A. Read	ARL 01-37	5300

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OFFICE OF COMMAND COUNSEL,
U.S. ARMY MATERIEL COMMAND
ATTN: AMCCC-B-IP
9301 CHAPEK ROAD
FORT BELVOIR, VA 22060-5527

EXAMINER	
RHEE, JANE J	
ART UNIT	**PAPER NUMBER**
1745	

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/628,424	READ, JEFFREY A.	
	Examiner	Art Unit	
	Jane Rhee	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Rejections Withdrawn

1. The 35 U.S.C. 102(e) rejection of claims 1-12 anticipated by Kasamatsu et al.has been withdrawn due to applicant's arguments filed on 10/17/2005.

New Rejections

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6,9-12 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kasamatsu et al.(20030096168).

As to claim 1, Kasamatsu et al. discloses an electrolyte for a metal oxygen battery, the electrolyte comprising a non-aqueous solvent being characterized in that the solubility of oxygen therein is at least 0.1150 ccO2/cc solvent at STP, and a metal electrolyte salt dissolved in the solvent (pg 4 paragraphs 0069,0071).

As to claim 2, Kasamatsu et al. discloses that the solvent comprises a mixture of materials, and wherein at least 50% on a weight basis of the materials have an oxygen solubility of at least 0.1760 ccO2/cc at STP (pg 4 paragraphs 0069,0071).

As to claim 3, Kasamatsu et al. discloses that the nonaqueous solvent comprises diethyl carbonate (pg 4 paragraphs 0069).

As to claim 4, Kasamatsu et al. discloses that the metal oxygen battery is a lithium battery and wherein the metal electrolyte salt is a lithium salt (pg 4 paragraph 0071).

As to claim 5, Kasamatsu et al. discloses that the lithium salt is LiPF6 (pg 4 paragraph 0071).

As to claim 6, Kasamatsu et al. discloses that the metal electrolyte salt is in the range of 0.5-1.0 molar (page 5 paragraph 0096).

As to claim 9, Kasamatsu et al. discloses a method for optimizing the composition of an electrolyte for a metal oxygen battery, the electrolyte comprising a solvent and an electrolyte salt, the method comprising the step of selecting the solvent from those materials which will dissolve the electrolyte salt and which have a solubility for oxygen which is at least 0.1150 cc O2/cc at STP (pg 4 paragraphs 0069,0071).

As to claim 10, Kasamatsu et al. discloses wherein the solvent is selected from materials comprising a mixture of components in which at least 50% of the components on a weight basis have a solubility for oxygen which is at least 0.1760 cc O2/cc at STP (pg 4 paragraphs 0069,0071).

As to claim 11, Kasamatsu et al. discloses an electrolyte for a lithium oxygen battery, the elctroyte comprising on a weight basis; 1 part of a first component of propylene carbonate and at least one part of a second component of diethyl carbonate and 0.5-1.0 moles of lithum electrolyte salt (pg 4 paragraphs 0069,0071).

As to claim 12, Kasamatsu et al. discloses that the electrolyte salt comprises LiPF6 (pg 4 paragraphs 0069,0071).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 7-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kawakami et al. (5824434).

As to claim 7, Kawakami et al. discloses a metal oxygen battery comprising a metal containing anode (col. 20 line 7), an electro-active oxygen cathode (col. 19 line 20-29), an electrolyte disposed so as to provide ionic communication between the anode and the cathode, the electrolyte comprising a non aqueous solvent, the solvent characterized in that the solubility of oxygen therein is at least 0.1150 cco2.cc at STP and a metal electrolyte salt dissolved in the solvent (col. 20 lines 15-25).

As to claim 8, Kawakami et al. discloses wherein the nonaqueous solvent comprises a plurality of components, and wherein the oxygen solubility of at least 50% of the components on a weight bases is at least 0.1760 cc O2/cc at STP (col. 20 lines 15-25).

Response to Arguments

2. Applicant's arguments filed 10/17/2005 have been fully considered but they are not persuasive.

In response to applicant's argument that Kasamatsu et al. fail to disclose an electrolyte for a metal oxygen battery, "an electrolyte for a metal oxygen battery" is an intended use. It has been held that a recitation with respect to the manner in which the claimed particle is intended to be employed does not differentiate the claimed article form a prior art article satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987)

In response to applicant's argument that Kasamatsu et al. fail to disclose the solvent being characterized in that "the solubility of oxygen therein is at least 0.1150ccO2/cc solvent...", Kasamatsu et al. discloses that the non aqueous solvent is diethyl carbonate as desired by the applicant therefore, in is inherent that diethyl carbonate has the solubility of oxygen therein is at least 0.1150ccO2/cc solvent at STP as claimed by the applicant.

In response to applicant's argument that Kasamatsu et al. fail to disclose that the oxygen solubility is a factor for consideration in the preparation of an electrolyte for the nonaqueous electrolyte secondary battery, Kasamatsu et al. discloses that the non aqueous solvent is diethyl carbonate as desired by the applicant therefore, in is inherent that diethyl carbonate has at least 50% on a weight basis of the materials have an oxygen solubility of at least 0.1760cc O2/cc at STP as claimed by the applicant.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane Rhee whose telephone number is 571-272-1499. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jane Rhee
December 19,2005

PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER